# SHARP

## SERVICE MANUAL/SERVICE-ANLEITUNG/MANUEL DE SERVICE

S5582SM-207HS/

# SM-207H(S)(BK)
# SM-207E(BK)

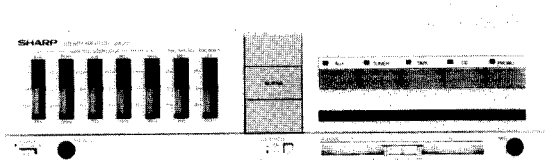

PHOTO: SM-207H(S)

- In the interests of user-safety the set should be restored to its original condition and only parts identical to those specified be used.
- Im Interesse der Benutzer-Sicherheit sollte dieses Gerät wieder auf seinen ursprünglichen Zustand eingestellt und nur die vorgeschriebenen Teile verwendet werden.
- Dans l'intérêt de la sécurité de l'utilisateur, l'appareil devra être reconstitué dans sa condition première et seules des pièces identiques à celles spécifiées, doivent être utilisées.

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SHARP CORPORATION

Ⓔ

FOR A COMPLETE DESCRIPTION OF THE OPERATION OF THIS UNIT, PLEASE REFER TO THE OPERATION MANUAL.

## SPECIFICATIONS

| | |
|---|---|
| Power source: | AC 220 V, 50/60 Hz (for H)<br>AC 240 V, 50 Hz (for E) |
| Power consumption: | 180 W<br>(with cassette deck and turntable) |
| Semiconductors: | 8 ICs<br>35 Transistors<br>23 Diodes<br>7 LEDs |
| Music power output: | 2 x 65 W/6 ohms, 0.8% T.H.D.<br>1 kHz |
| Continuous power output: | 2 x 40 W/6 ohms, 0.8% T.H.D.<br>1 kHz<br>both channels driven |
| Input sensitivity and Impedance: | AUX; 200 mV, 47 k ohms<br>CD; 250 mV, 47 k ohms |
| Loaded impedance: | Speaker; 6 ohms<br>Headphones; 8–25 ohms |
| Dimensions: | Width; 330 mm (13")<br>Height; 80 mm (3-5/32")<br>Depth; 317 mm (12-1/2") |
| Weight: | 4.3 kg (9.5 lbs.) |

Specifications for this model are subject to change without prior notice.

## NAMES OF PARTS

1. Graphic Equalizer Controls
2. Microphone Mixing Volume Control
3. Balance Control
4. Muting Button
5. Function Selector Switches and Indicators
6. Power Switch
7. Headphones Socket
8. Loudness Switch
9. Muting Indicator
10. Volume Control
11. Power Indicator
12. Microphone Socket
13. Phono Input Socket
14. CD Sockets
15. Tape Input/Output Socket
16. Tuner Input Socket
17. Auxiliary Input Socket
18. Speaker Socket
19. AC Power Supply Cord

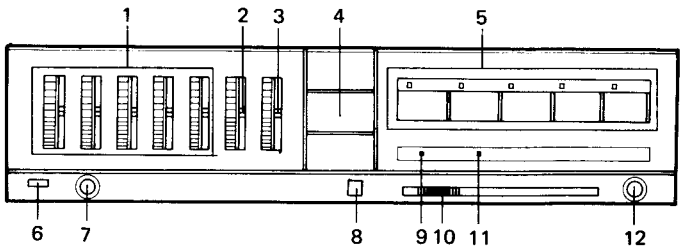



**Figure 2–1**

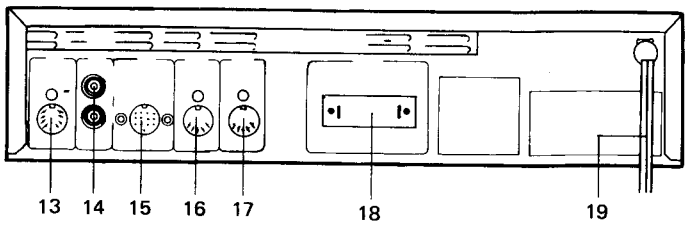



**Figure 2–2**

(D)

EINE VOLLSTÄNDIGE BESCHREIBUNG DER BEDIENUNG DIESES GERÄTES IST IN DER BEDIENUNGSANLEITUNG ENTHALTEN.

## TECHNISCHE DATEN

| | |
|---|---|
| Spannungsversorung: | Netzspannung 220 V, 50/60 Hz |
| Leistungsaufnahme: | 180 W (mit Cassettendeck und Plattenspieler) |
| Bestückung: | 8 integrierte Schaltkreise<br>35 Transistoren<br>23 Dioden<br>7 Leuchtdioden |
| Musikleistung: | 2 x 65 W/6 Ohm, 0,8% Gesamtklirrfaktor 1 kHz |
| Sinusleistung: | 2 x 40 W/6 Ohm, 0,8% Gesamtklirrfaktor 1 kHz bei Aussteuerung beider Kanäle |
| Eingangsempfindlichkeit und -impedanz: | AUX; 200 mV, 47 kOhm<br>CD; 250 mV, 47 kOhm |
| Belastungsimpedanz: | Lautsprecher; 6 Ohm<br>Kopfhörer; 8–25 Ohm |
| Abmessungen: | Breite; 330 mm<br>Höhe; 80 mm<br>Tiefe; 317 mm |
| Gewicht: | 4,3 kg |

Die technischen Daten für dieses Modell können ohne vorherige Ankündigung Änderungen unterworfen sein.

## BEZEICHNUNG DER TEILD

1. Frequenzgangentzerrersteller
2. Mischmikrofonlautstärkesteller
3. Blancesteller
4. Stummschaltungstaste
5. Funktionwahlschalter und-anzeigen
6. Netzschalter
7. Kopfhörerbuchse
8. Schalter für gehörrichtige Lautstärke
9. Stummschaltungsanzeige
10. Lautstärkesteller
11. Spannungsversorgungsanzeige
12. Mikrofonbuchse
13. Phono-Eingangsbuchse
14. CD-Buchsen
15. Tonbandgeräteingangs-/ausgangsbuchse
16. Tuner-Eingangsbuchsen
17. Reserveeingangsbuchsen
18. Lautsprecheranschlüsse
19. Cordon secteur

(F)

POUR LA DESCRIPTION COMPLÈTE DU FONCTIONNEMENT DE CET APPAREIL, SE REPORTER AU MODE D'EMPLOI.

## CARACTÉRISTIQUES

| | |
|---|---|
| Alimentation: | 220V CA, 50/60 Hz |
| Consommation: | 180W (avec platine à cassette et tourne-disque) |
| Semi-conducteurn: | 8 CI<br>35 transistors<br>23 diodes<br>7 LED |
| Sortie de puissance musicale: | 2 x 65W/6 ohms, 0,8% de D.H.T., 1 kHz |
| Sortie de puissance continue: | 2 x 40W/6 ohms, 0,8% de D.H.T., 1 kHz, deux canaux entraînés |
| Sensibilité et impédance d'entrée: | AUX; 200 mV, 47 k ohms<br>CD; 250 mV, 47 k ohms |
| Impédance chargée: | Enceintes: 6 ohms<br>Casque: 8 à 25 ohms |
| Dimensions: | Largeur: 330 mm<br>Hauteur: 80 mm<br>Profondeur: 317 mm |
| Poids: | 4,3 kg |

Les caractéristiques de ce modèle sont sujettes á modification sans préavis.

## NOMENCLATURE

1. Commandes d'égaliseur graphique
2. Commande de volume de mixage
3. Commande de balace
4. Bouton de réglage silencieux
5. Commutateurs et témoins de sélection de fonction
6. Commutateur d'alimentation
7. Douille de casque
8. Commutateur de compensation physiologique
9. Témoin de réglage silencieux
10. Commande de volume
11. Témoin d'alimentation
12. Douille de microphone
13. Douille d'entrée phono
14. Douilles CD
15. Douille d'entrée/sortie de bande
16. Douille d'entrée tuner
17. Douille d'entrée auxiliaire
18. Bornes d'enceintes
19. Netzkabel

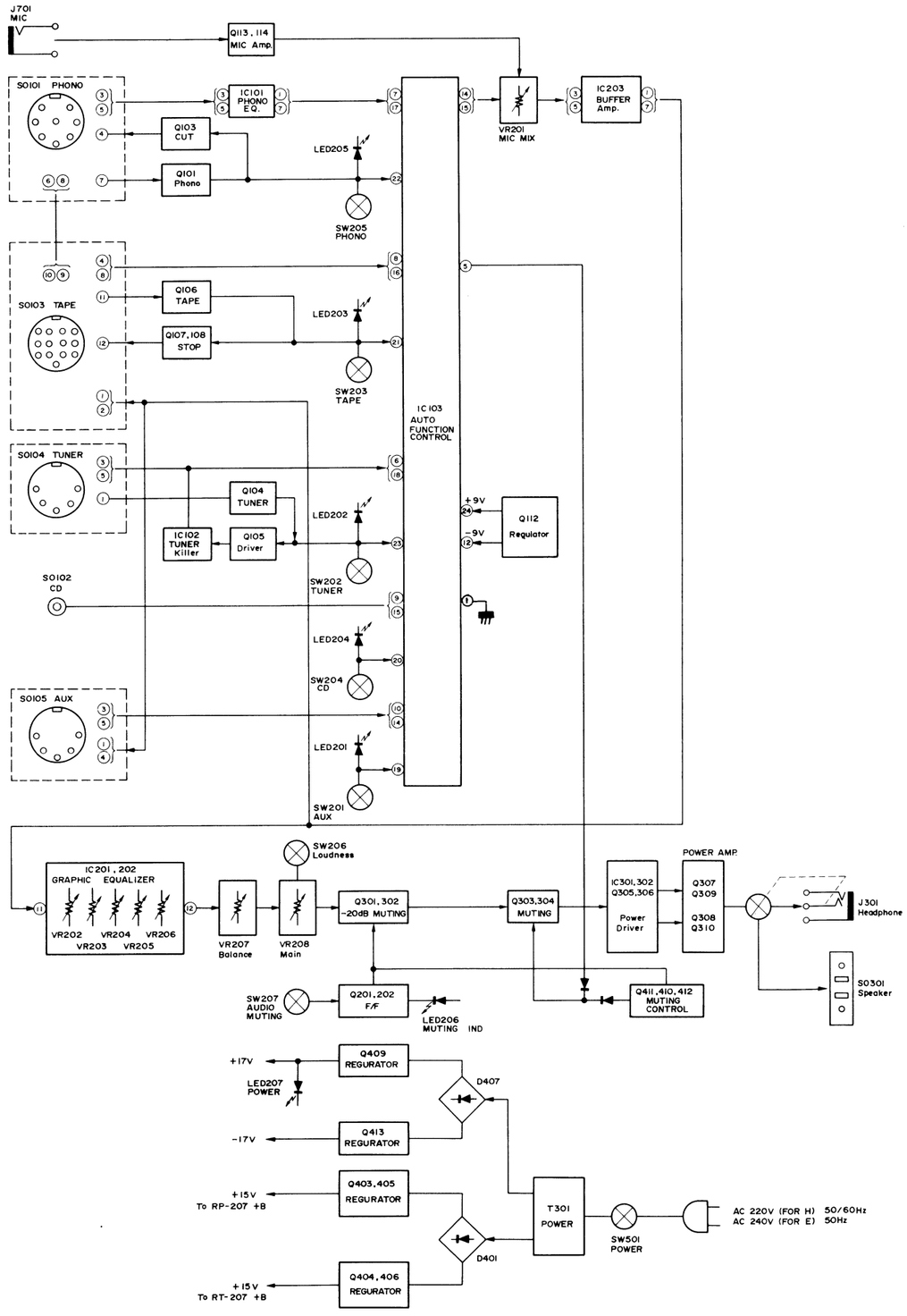



**Figure 4 BLOCK DIAGRAM**

## Ⓔ DISASSEMBLY

**Caution on Disassembly**
Follow the below-mentioned notes when disassembling the unit and reassembling it, to keep its safety and excellent performance:

1. Be sure to remove the power supply plug from the wall outlet before starting to disassemble the unit.
2. Take off nylon bands or wire holders where they need be removed when disassembling the unit. After servicing the unit, be sure to rearrange the leads where they were before disassembling.
3. Take sufficient care on static electricity of integrated circuits and other circuits when servicing.

| STEP | REMOVAL | PROCEDURE | FIGURE |
|---|---|---|---|
| 1 | Cabinet | 1. Screw . . . . . (A)x5 | 5–1 |
| 2 | Front panel | 1. Screw . . . . . (B)x5<br>2. Screw . . . . . (C)x3<br>3. Unconnect the Flat wire . . . . . (D)x3 | 5–2<br>5–3 |
| 3 | Indicator PWB (*1) | 1. Screw . . . . . (E)x3<br>2. Hook . . . . . (F)x8 | 5–4 |
| 4 | Headphones PWB (*1) | 1. Spacer . . . . . (G)x1<br>2. Hook . . . . . (H)x1 | 5–5 |
| 5 | Mic. PWB (*1) | 1. Spacer . . . . . (I)x1<br>2. Hook . . . . . (J)x1 | 5–5 |

* 1. Each P.W.B. should be removed until the parts to be exchanged can be removed when servicing. If the parts to be exchanged are in the exchangeable condition, the rest of P.W.Bs. need not to be removed.

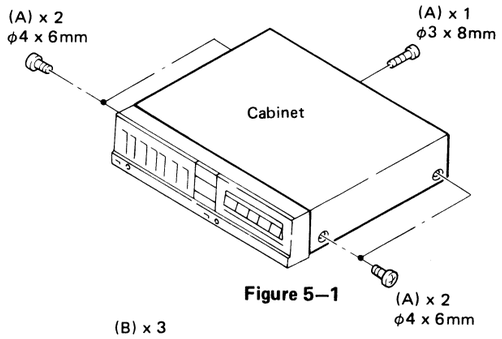



Figure 5–1

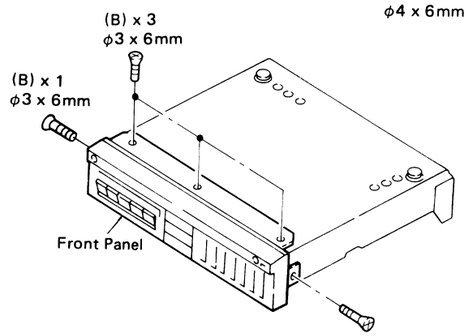



Figure 5–2

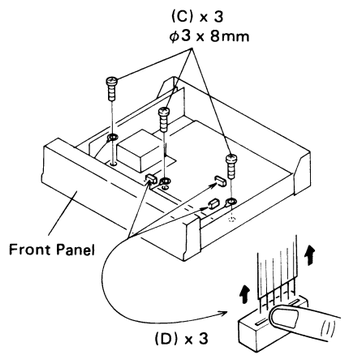



Figure 5–3

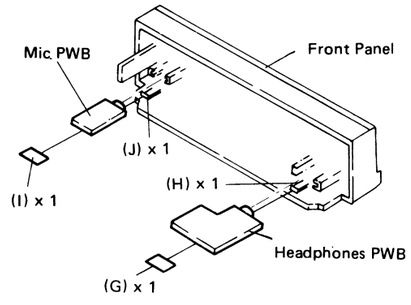



Figure 5–5

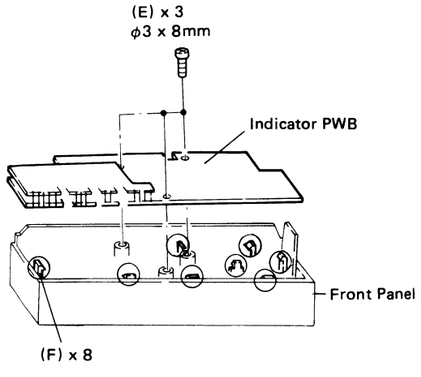



Figure 5–4



## Ⓓ ZERLEGEN

**Vorsichtmassregeln für das zerlegen**
Beim Zerlegen und Zusammenbauen des Gerätes die folgenden Anweisungen befolgen, um dessen Betriebssicherheit und ausgezeichnete Leistung aufrechtzuerhalten.

1. Bevor mit dem Zerlegen des Gerätes begonnen wird, unbedingt den Netzkabelstecker aus der Netzsteckdose ziehen.
2. Nylonbänder oder Leitungshalter entfernen, falls dies beim Zerlegen des Gerätes erforderlich ist. Nach Warten des Gerätes darauf achten, die Leitungen wieder so zu verlegen, wie sie vor dem Zerlegen angeordnet waren.
3. Beim Ausführen von Wartungsarbeiten auf statische Elektrizrizität der integrierten Schaltkreise und anderen Schaltungen achten.

| SCHRITT | ENTFERNEN | VERFAHREN | ABBILDUNG |
|---|---|---|---|
| 1 | Gehäuse | 1. Schraube . . . . . (A)x5 | 5–1 |
| 2 | Frontplatte | 1. Schraube . . . . . (B)x5<br>2. Schraube . . . . . (C)x3<br>3. Den Flachdraht trennen . . . . . (D)x3 | 5–2<br>5–3 |
| 3 | Anzeige Leiterplatte | 1. Schraube . . . . . (E)x3<br>2. Haken . . . . . (F)x8 | 5–4 |
| 4 | Kopfhörer Leiterplatte | 1. Abstand halter . . (G)x1<br>2. Haken . . . . . (H)x1 | 5–5 |
| 5 | Microfon Leiterplatte | 1. Abstand halter . . (I)x1<br>2. Haken . . . . . (J)x1 | 5–5 |

*1. Die einzelnen Leiterplatten sollten entfernt werden, bis die zu auswechselnden Teile bei der Wartung entfernt werden können. Wenn die zu auswechselnden Teile in auswechselbarem Zustand sind, ist es nicht erforderlich, die restlichen Leiterplatten zu entfernen.

## Ⓕ DÉMONTAGE

**Précautions pour le démontage**
Lors du démontage de l'appareil et de son remontage, suivre les précautions ci-dessous, pour maintenir la sécurité et d'excellentes performances.

1. S'assurer de retirer la fiche d'alimentation secteur de la prise murale avant de démarrer le démontage de l'appareil.
2. Déposer les bandes de nylon ou les serre-câbles si nécessaire lors du démontage de l'appareil. Après la réparation de l'appareil, s'assurer de redisposer les fils tel qu'ils étaient avant le démontage.
3. Faire attention à l'électricité statique des circuits intégrés et des autres circuits lors de la réparation.

| ÉTAPE | DÉPOSE | PROCÉDÉ | FIGURE |
|---|---|---|---|
| 1 | Coffret | 1. Vis . . . . . (A)x5 | 5–1 |
| 2 | Panneau avant | 1. Vis . . . . . (B)x5<br>2. Vis . . . . . (C)x3<br>3. Débrancher le fil plat . . . . . (D)x3 | 5–2<br>5–3 |
| 3 | PMI Indicateur | 1. Vis . . . . . (E)x3<br>2. Crochet . . . . . (F)x8 | 5–4 |
| 4 | PMI casque | 1. Entretoise . . . (G)x1<br>2. Crochet . . . . . (H)x1 | 5–5 |
| 5 | PMI Microphone | 1. Entretoise . . . (I)x1<br>2. Crochet . . . . . (J)x1 | 5–5 |

*1. Chaque P.M.I. doit être déposée jusqu' à l'échange de pièces de P.M.I. Si l'échange de pièces est possible, on n'a pas besoin de déposer les autres P.M.I.

## Ⓔ CIRCUIT ADJUSTMENT

| SWITCH POSITION | Volume Control: 0 |
|---|---|
| ADJUSTMENT | REMARKS |
| VR301, VR302 | 1 mV |

## Ⓓ SCHALTUNGSEINSTELLUNG

| SCHALTERSTELLUNG | Lautstärkesteller: 0 |
|---|---|
| EINSTELLUNG | BEMERKUNGEN |
| VR301, VR302 | 1 mV |

## Ⓕ REGLAGE DU CIRCUIT

| POSITION DU COMMUTATER | Commande de volume: 0 |
|---|---|
| RÉGLAGE | REMARQUES |
| VR301, VR302 | 1 mV |

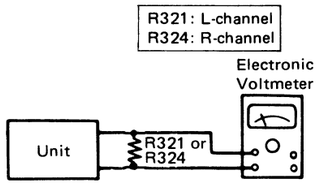



**Figure 7–1**

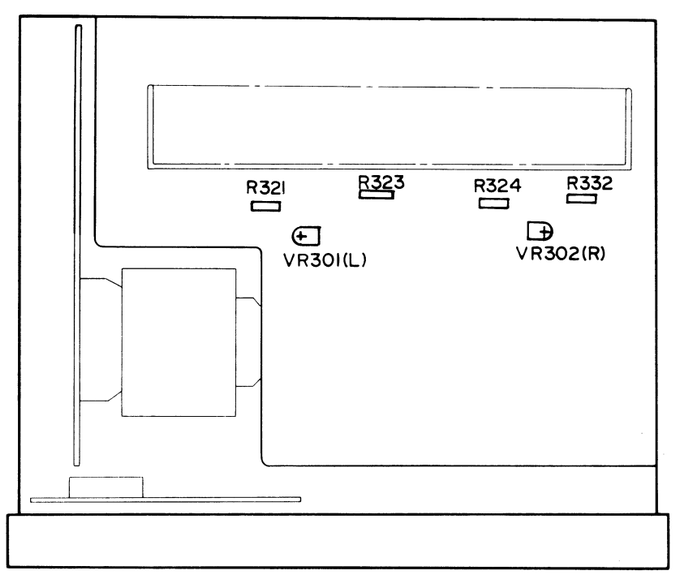



**Figure 7–2 ADJUSTMENT POINTS**



## Ⓔ NOTES ON SCHEMATIC DIAGRAM

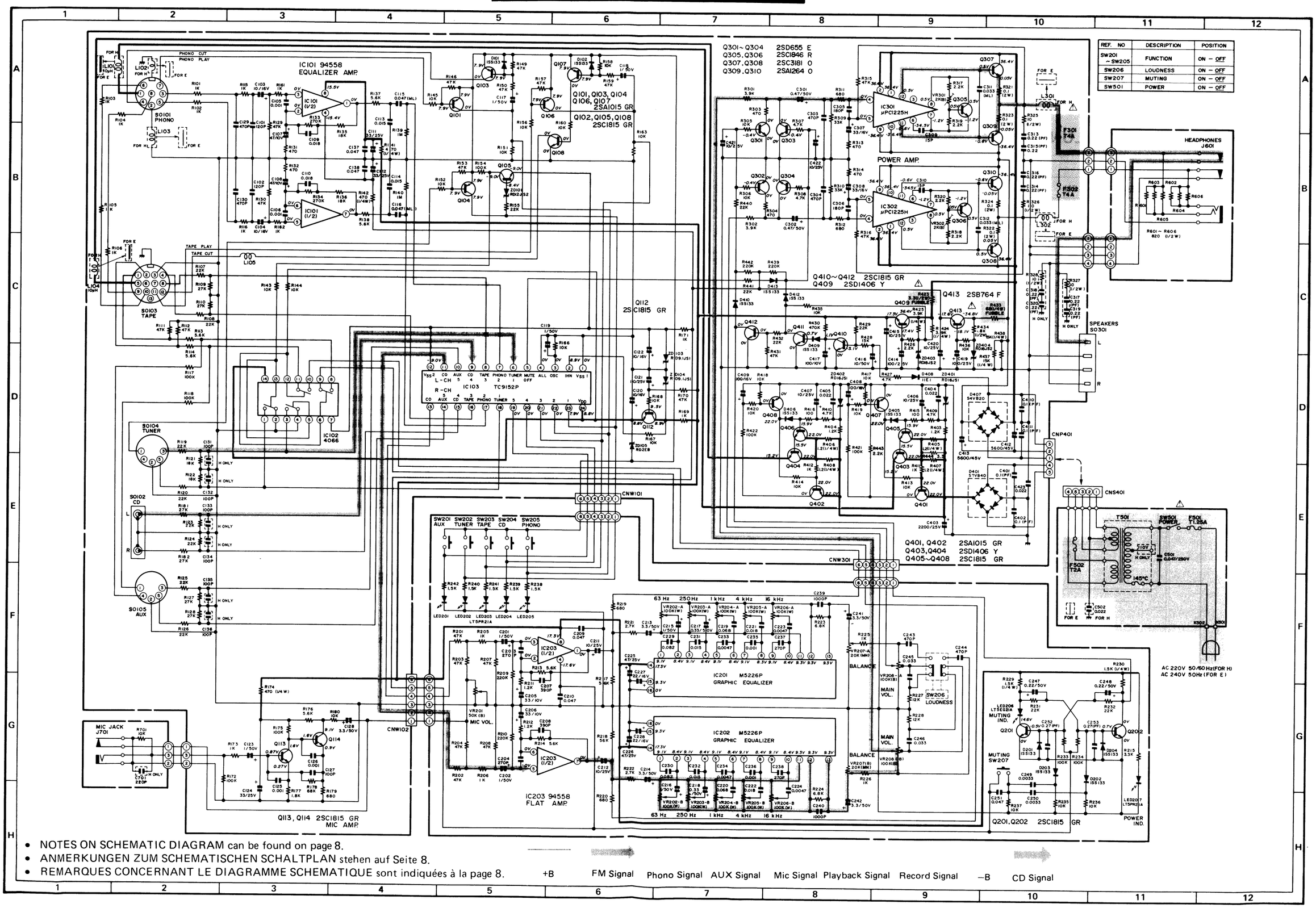
- Resistor:
  To differentiate the units of resisitors, such symbol as K and M are used: the symbol K means 1000 ohm, the symbol M means 1000 kohm and the resistor without any symbol is ohm-type resistor.
- Capacitor:
  To indicate the unit of capacitor, a symbol P is used: this symbol P means micro-micro-farad and the unit of the capacitor without such a symbol is microfarad. As to electrolytic capacitor, the expression "capacitance/withstand voltage" is used.
  (CH), (RH), (TH), (UJ): Temperature compensation
- To indicated voltage in each section is the one measured by Digital Multimeter between such a section and the chassis with no signal given.
- Schematic diagram and Wiring Side of P.W.Board for this model are subject to change for improvement without prior notice.
- Parts marked with "⚠" (▒▒) are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

## Ⓓ ANMERKUNGEN ZUM SCHEMATISCHEN SCHALTPLAN

- Widerstände:
  Um die Einheiten der Widerstände unterscheiden zu können, werden Symbole wie K und M benutzt. Das Symbol K bedeutet 1000 Ohm und das Symbol M 1000 Kiloohm. Bei Widerständen ohne Symbol handelt es sich um ohmsche Widerstände.
- Kondensatoren:
  Zum Bezeichnen der Kondensatoreinheit wird das Symbol P benutzt; dieses Symbol P bedeutet Nanofarad. Die Einheit eines Kondensators ohne Symbol ist Mikrofarad. Für Elektrolytkondensatoren wird die Bezeichnung "Kapazität/Stehspannung" benutzt.
  (CH), (RH), (TH), (UJ): Wärmeausgleich
- Die in den einzelnen Teilen angegebenen Spannungen werden mit einem Digitalvielfachmeßgerät zwischen dem betreffen den Teil und dem Chassis ohne Signalzuleitung gemessen.
- Änderungen des schematischen Schaltplans und der Verdrahtungsseite der Leiterplatte für dieses Modell im Sinne von Verbesserungen jederzeit vorbehalten.
- Die mit ⚠ (▒▒) bezeichneten Teile sind besonders wichtig für die Aufrechterhaltung der Sicherheit. Beim Wechseln dieser Teile sollten die vorgeschriebenen Teile immer verwendet werden, um sowohl die Sicherheit als such die Leistung des Gerätes aufrechtzuerhalten.

## Ⓕ REMARQUES CONCERNANT LE DIAGRAMME SCHÉMATIQUE

- Résistance:
  Pour différencier les unités de résistances, on utilise des symbole tels que K et M le symbole K signifie 1000 ohms, le symbole M signifie 1000 K ohms et la résistance donnée sans symbole est une résistance de type ohm.
- Condensateur:
  Pour indiquer l'unité de condensateur, on utilise le symbole P; ce symbole P signifie micro-microfarad, et l'unité de condensateur donnée sans ce symbole est le microfarad. En ce qui concerne le condensateur électrolytique, on utilise l'expression "tension de régime/capacité"
  (CH), (RH), (TH), (UJ): Compensation thermique
- La tension indiquée dans chaque section est celle mesuree par un multimètre numérique entre la section en question et le châssis, en l'absence de tout signal.
- Le diagramme schématique et le côté câblage de la PMI de ce modèle sont sujets à modifications sans préavis pour l'amélioration de ce produit.
- Les pièces portant la marque ⚠ (▒▒) sont particulièrement importantes pour le maintien de la sécurité. S'assurer de les remplacer par des pièces du numéro de pièce spécifié pour maintenir la sécurité et la performance de l'appareil.




| REF. NO | DESCRIPTION | POSITION |
|---|---|---|
| SW201 ~SW205 | FUNCTION | ON – OFF |
| SW206 | LOUDNESS | ON – OFF |
| SW207 | MUTING | ON – OFF |
| SW501 | POWER | ON – OFF |

- NOTES ON SCHEMATIC DIAGRAM can be found on page 8.
- ANMERKUNGEN ZUM SCHEMATISCHEN SCHALTPLAN stehen auf Seite 8.
- REMARQUES CONCERNANT LE DIAGRAMME SCHEMATIQUE sont indiquées à la page 8.

+B FM Signal Phono Signal AUX Signal Mic Signal Playback Signal Record Signal –B CD Signal



Figure 9 SCHEMATIC DIAGRAM

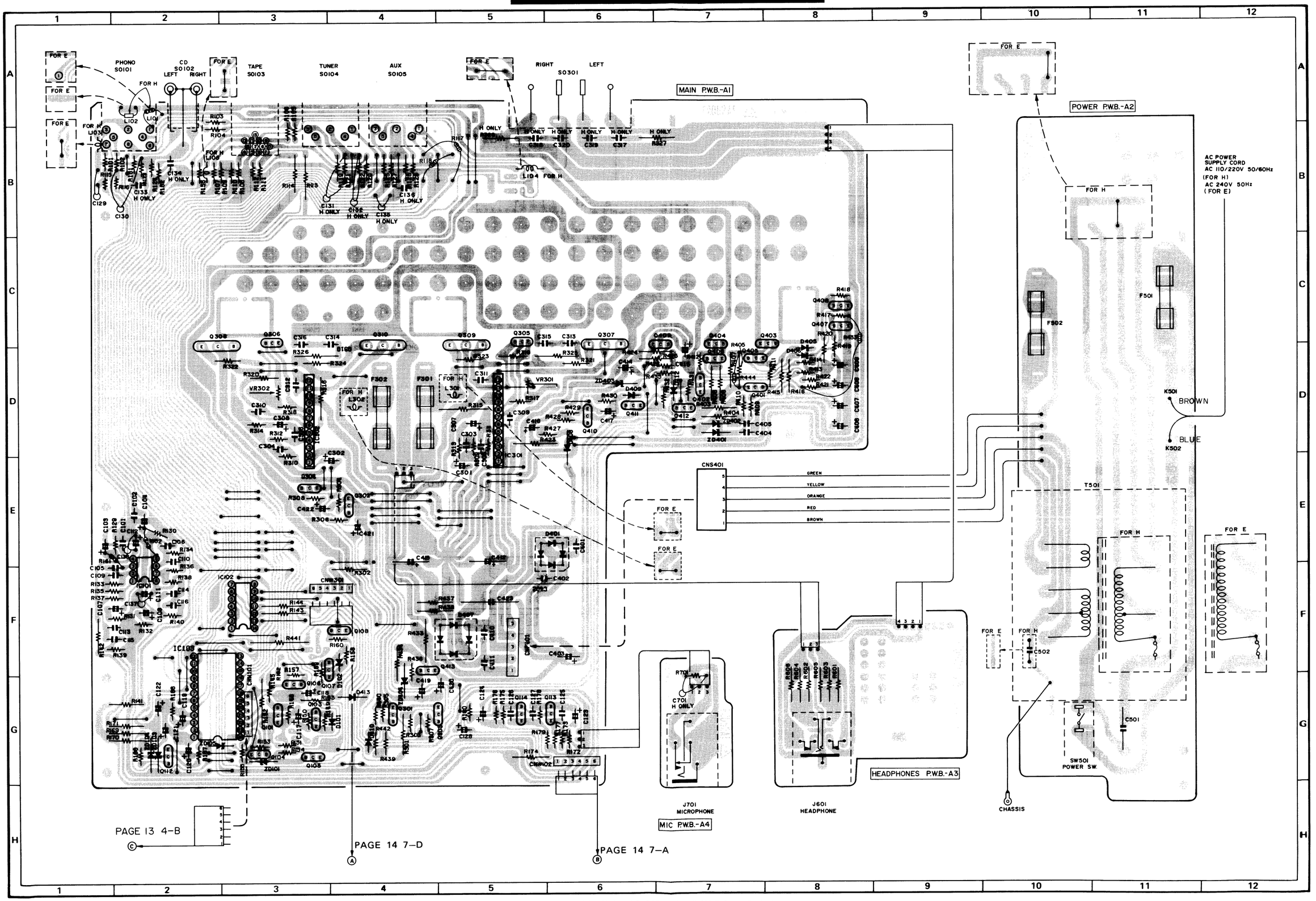
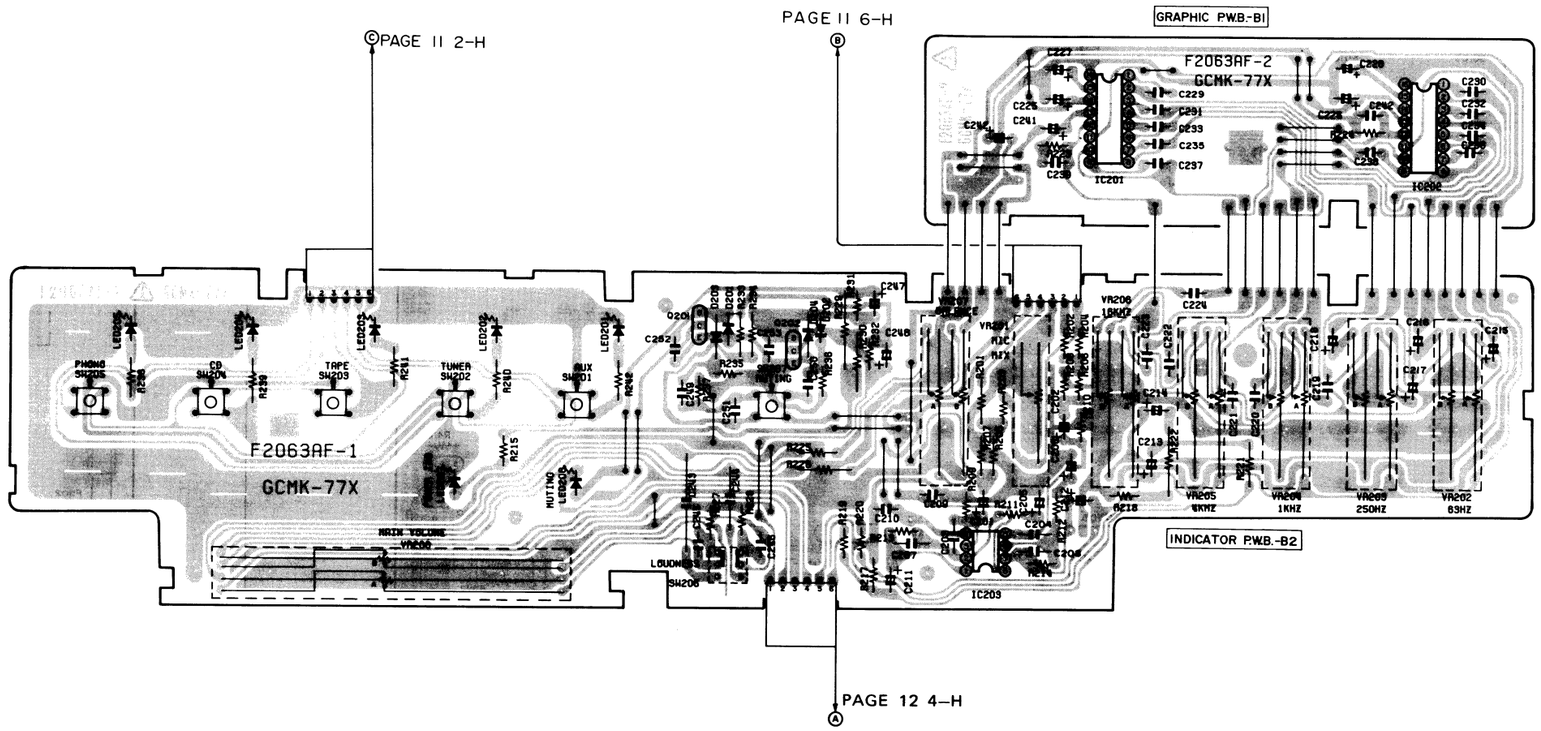



Figure 11 WIRING SIDE OF P.W.BOARD (1/2)

PAGE II 2-H

PAGE II 6-H

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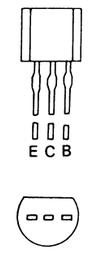
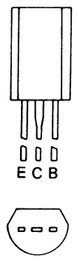
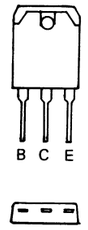
2SA1815 GR
2SA1015 GR



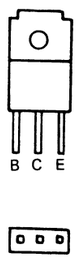

2SB764 F



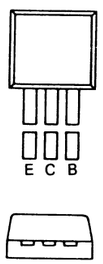

2SC3181 O
2SA1264 O



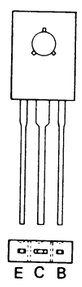

2SD1406 Y



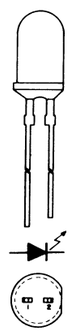

2SD655 E




2SC1846 R




LT5PR21A
LT5EG21A



M5226P

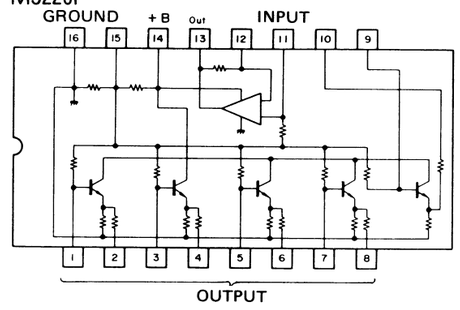



Figure 13 WIRING SIDE OF P.W.BOARD (2/2)

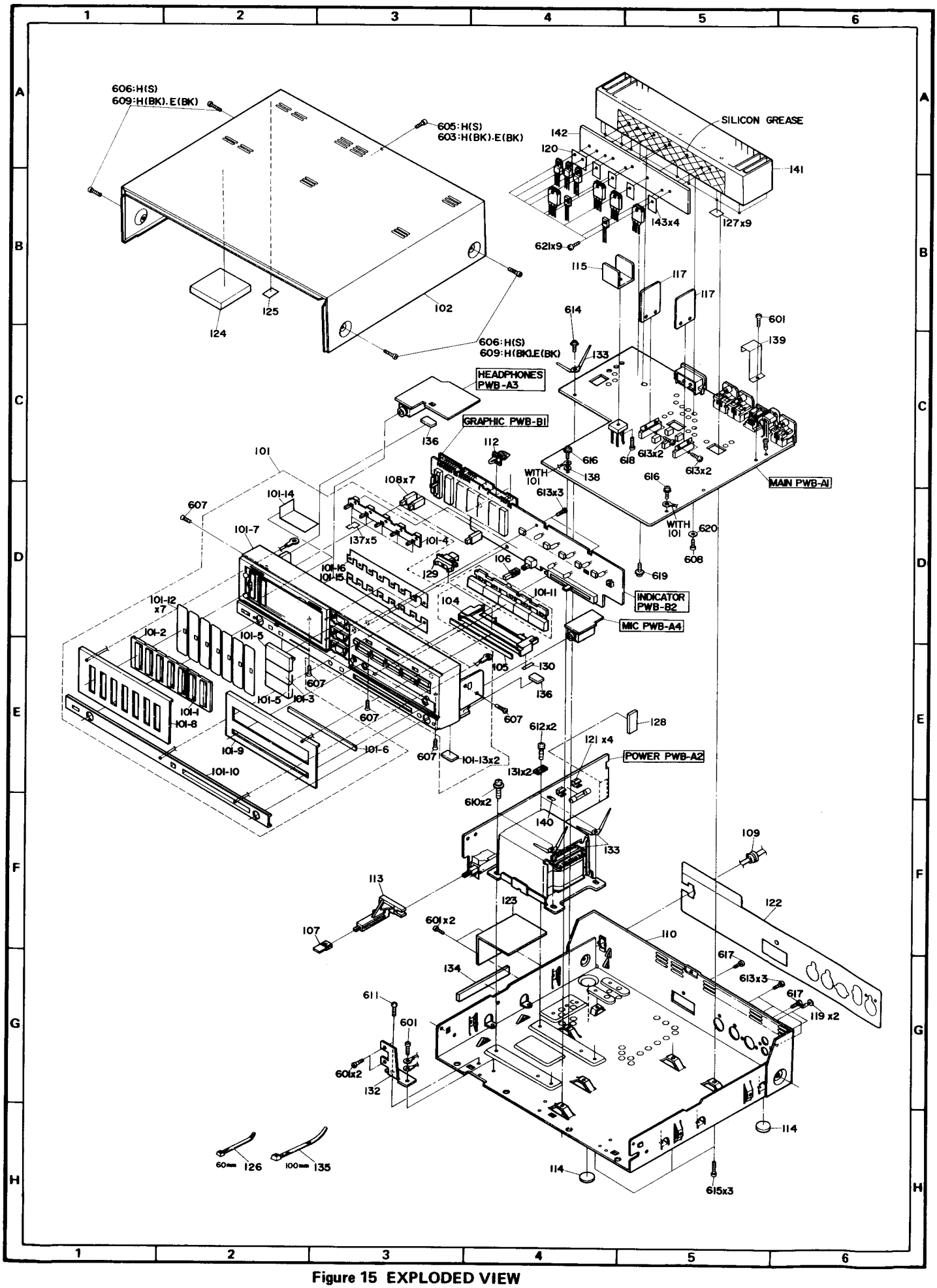



**Figure 15 EXPLODED VIEW**

## WIRING OF PRIMARILY SUPPLY LEADS (FOR UK)

If any one of the nylon bands shown in the Fig. 16–1 is removed for some reason, be sure to replace it to the original position and the same appearance as before.

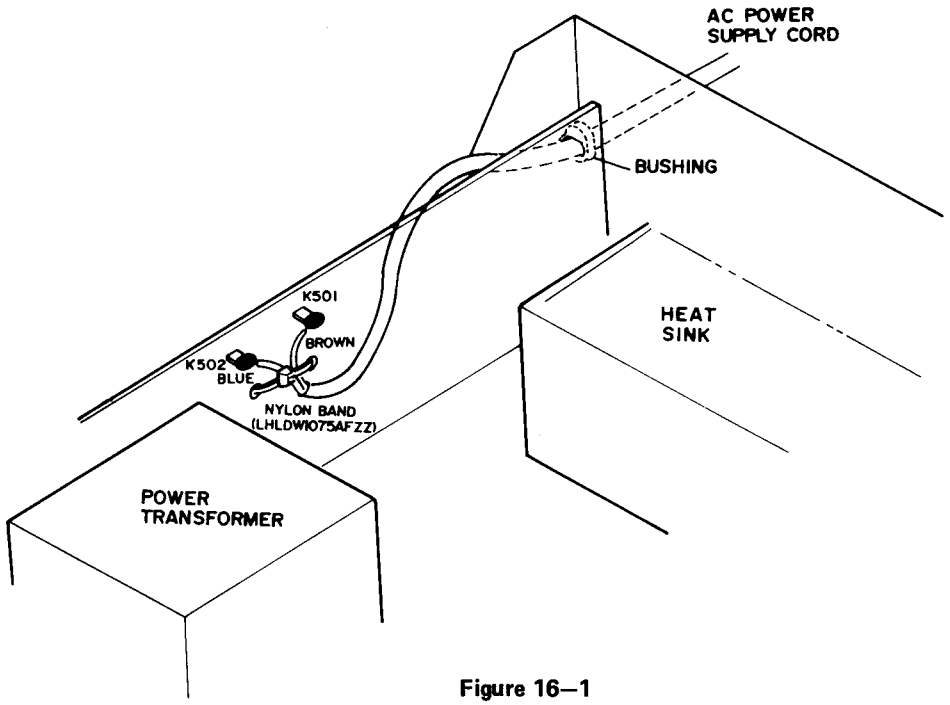



Figure 16–1

## PACKING METHOD (FOR UK)

| SETTING POSITIONS OF SWITCHES AND KNOBS | |
|---|---|
| Power Switch | OFF |
| Graphic Equalizer Control | CENTER (0) |
| Mic. Mixing Control | MIN (0) |
| Balance Control | CENTER (0) |
| Loudness Switch | OFF |
| Volume Control | ZERO(0) |

| | | |
|---|---|---|
| 1. | Polyethylene Bag, Unit | SPAKP0582AFZZ |
| 2. | Caution Label, Polyethylene Bag | TCAUZ0039AFZZ |
| 3. | Label, MADE IN JAPAN | TLABJ0006AFZZ |
| 4. | Caution Label, AC Power Supply Cord | TCAUH0056AGZZ |
| 5. | Operation Manual | TINSE1061AFZZ |
| 6. | Wire Antenna | QANTW0064AFZZ |
| 7. | Warranty Card | TGANE1117AFZZ |
| 8. | Polyethylenen Bag, Accessories | SSAKA0104AFZZ |
| 9. | Packing Add. Left | SPAKA1480AFZZ |
| 10. | Packing Add. Right | SPAKA1481AFZZ |
| 11. | Packing Case | SPAKC3494AFZZ |
| 12. | Cleaner, Stylus | PBRSR0004AFZZ |
| 13. | Leg, Felt | PFLT-0665AFZZ |
| 14. | Loop Antenna | QANTL0013AFZZ |

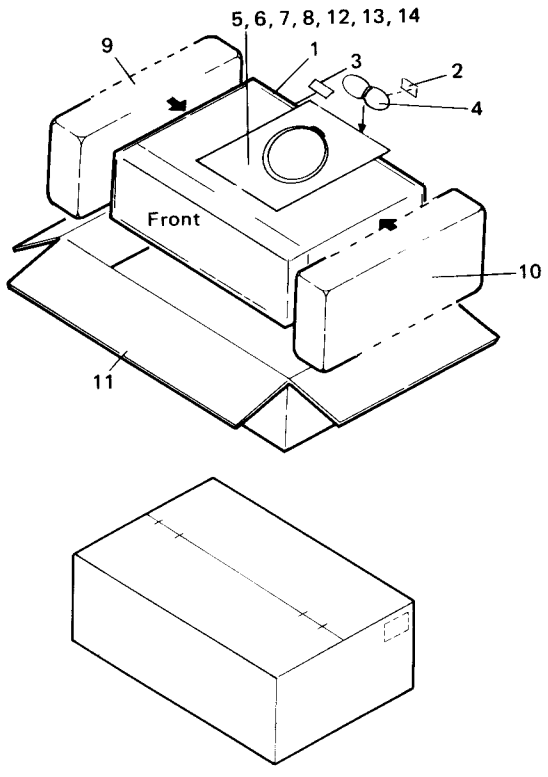



Figure 16–2

# Ⓔ REPLACEMENT PARTS LIST

**"HOW TO ORDER REPLACEMENT PARTS"**

To have your order filled promptly and correctly, please furnish the following information.

1. MODEL NUMBER
2. REF. NO.
3. PART NO.
4. DESCRIPTION

**NOTE:**
Parts marked with "⚠" are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

# Ⓓ ERSATZTEILLISTE

**"BESTELLEN VON ERSATZTEILEN"**

Um Ihren Auftrag schnell und richtig ausfuhren zu können, bitten wir um die folgenden Angaben.

1. MODELLNUMMER
2. REF. NR.
3. TEIL NR.
4. BESCHREIBUNG

**ANMERKUNGEN:**
Die mit ⚠ bezeichneten Teile sind besonders wichtig fur die Aufrechterhaltung der Sicherheit. Beim Wechseln dieser Teile sollten die vorgeschriebenen Teile immer verwendet werden, um sowohl die Sicherheit ais auch die Leistung des Gerätes aufrechtzuerhalten.

# Ⓕ LISTE DES PIÈCES DE RECHANGE

**"COMMENT COMMANDER DES PIÈCES DE RECHANGE"**

Pour voir votre commande exécutée de manière rapide et correcte, veuillez fournir les renseignements suivants.

1. NUMÉRO DU MODÈLE
2. N° DE RÉFÉRENCE
3. N° DE LA PIÈCE
4. DESCRIPTION

**NOTE:**
Les pièces portant la marque ⚠ sont particulièrement importantes pour le maintien de la securité. S'assurer de les remplacer par des pièces du numéro de pièce spécifié pour maintenir la sécurité et la performance de l' appareil.

| REF.NO. | PART NO. | DESCRIPTION | CODE |
|---|---|---|---|
| | | **INTEGRATED CIRCUITS** | |
| IC101 | VHiiR94558/-1 | Ope.Amp,IR94558 | A F |
| IC102 | RH-iX1215AFZZ | Analogue Switch,MC14066 BCP,LC4066B | A H |
| IC103 | VHiTC9152P/-1 | Function Controller,TC9152 P | A Q |
| IC201 | VHiM5226P//-1 | Graphic Equalizer Circuit, M5226P | A G |
| IC202 | VHiM5226P//-1 | Graphic Equalizer Circuit, M5226P | A G |
| IC203 | VHiiR94558/-1 | Ope.Amp,IR94558 | A F |
| IC301 | VHiUPC1225H-1 | Power Amp,μPC1225H | A K |
| IC302 | VHiUPC1225H-1 | Power Amp,μPC1225H | A K |
| | | **TRANSISTORS** | |
| Q101 | VS2SA1015GR-1 | Silicon,PNP,2SA1015 GR | A B |
| Q103 | VS2SA1015GR-1 | Silicon,PNP,2SA1015 GR | A B |
| Q104 | VS2SA1015GR-1 | Silicon,PNP,2SA1015 GR | A B |
| Q105 | VS2SC1815GR-1 | Silicon,NPN,2SC1815 GR | A B |
| Q106 | VS2SA1015GR-1 | Silicon,PNP,2SA1015 GR | A B |
| Q107 | VS2SA1015GR-1 | Silicon,PNP,2SA1015 GR | A B |
| Q108 | VS2SC1815GR-1 | Silicon,NPN,2SC1815 GR | A B |
| Q112 | VS2SC1815GR-1 | Silicon,NPN,2SC1815 GR | A B |
| Q113 | VS2SC1815GR-1 | Silicon,NPN,2SC1815 GR | A B |
| Q114 | VS2SC1815GR-1 | Silicon,NPN,2SC1815 GR | A B |
| Q201 | VS2SC1815GR-1 | Silicon,NPN,2SC1815 GR | A B |
| Q202 | VS2SC1815GR-1 | Silicon,NPN,2SC1815 GR | A B |
| Q301 | VS2SD655E//-1 | Silicon,NPN,2SD655 E | A C |
| Q302 | VS2SD655E//-1 | Silicon,NPN,2SD655 E | A C |
| Q303 | VS2SD655E//-1 | Silicon,NPN,2SD655 E | A C |
| Q304 | VS2SD655E//-1 | Silicon,NPN,2SD655 E | A C |
| Q305 | VS2SC1846R/-1 | Silicon,NPN,2SC1846 R | A D |
| Q306 | VS2SC1846R/-1 | Silicon,NPN,2SC1846 R | A D |
| Q307 | VS2SC3181ō/-1 | Silicon,NPN,2SC3181 O | A H |
| Q308 | VS2SC3181ō/-1 | Silicon,NPN,2SC3181 O | A H |
| Q309 | VS2SA1264ō/-1 | Silicon,PNP,2SA1264 O | A K |
| Q310 | VS2SA1264ō/-1 | Silicon,PNP,2SA1264 O | A K |
| Q401 | VS2SA1015GR-1 | Silicon,PNP,2SA1015 GR | A B |
| Q402 | VS2SA1015GR-1 | Silicon,PNP,2SA1015 GR | A B |
| Q403 | VS2SD1406Y/-1 | Silicon,NPN,2SD1406 Y | A E |
| Q404 | VS2SD1406Y/-1 | Silicon,NPN,2SD1406 Y | A E |
| Q405 | VS2SC1815GR-1 | Silicon,NPN,2SC1815 GR | A B |
| Q406 | VS2SC1815GR-1 | Silicon,NPN,2SC1815 GR | A B |
| Q407 | VS2SC1815GR-1 | Silicon,NPN,2SC1815 GR | A B |
| Q408 | VS2SC1815GR-1 | Silicon,NPN,2SC1815 GR | A B |
| Q409 | VS2SD1406Y/-1 | Silicon,NPN,2SD1406 Y | A E |
| Q410 | VS2SC1815GR-1 | Silicon,NPN,2SC1815 GR | A B |
| Q411 | VS2SC1815GR-1 | Silicon,NPN,2SC1815 GR | A B |
| Q412 | VS2SC1815GR-1 | Silicon,NPN,2SC1815 GR | A B |
| Q413 | VS2SB764-F/-1 | Silicon,PNP,2SB764 F | A E |
| | | **DIODES** | |
| D101 | VHD1SS133//-1 | Silicon,1SS133 | A A |
| D102 | VHD1SS133//-1 | Silicon,1SS133 | A A |
| D201 | VHD1SS133//-1 | Silicon,1SS133 | A A |
| D202 | VHD1SS133//-1 | Silicon,1SS133 | A A |
| D203 | VHD1SS133//-1 | Silicon,1SS133 | A A |
| D204 | VHD1SS133//-1 | Silicon,1SS133 | A A |
| D401 | VHDS2VB40F/-1 | Rectifier,S2VB40F | A F |
| D405 | VHD1SS133//-1 | Silicon,1SS133 | A A |
| D406 | VHD1SS133//-1 | Silicon,1SS133 | A A |
| D407 | VHDS4VB20//-1 | Rectifier,S4VB20 | A G |
| D408 | VHD11E1TA2/-1 | Silicon,11E1 | A B |
| D409 | VHD1SS133//-1 | Silicon,1SS133 | A A |
| D410 | VHD1SS133//-1 | Silicon,1SS133 | A A |
| D412 | VHD1SS133//-1 | Silicon,1SS133 | A A |
| D413 | VHD1SS133//-1 | Silicon,1SS133 | A A |
| LED201 | VHPLT5PR21A-1 | LED,Red,LT5PR21A | A B |
| LED202 | VHPLT5PR21A-1 | LED,Red,LT5PR21A | A B |
| LED203 | VHPLT5PR21A-1 | LED,Red,LT5PR21A | A B |
| LED204 | VHPLT5PR21A-1 | LED,Red,LT5PR21A | A B |
| LED205 | VHPLT5PR21A-1 | LED,Red,LT5PR21A | A B |
| LED206 | VHPLT5EG21A-1 | LED,Yellow Green,LT5EG21 A | A C |
| LED207 | VHPLT5PR21A-1 | LED,Red,LT5PR21A | A B |
| ZD101 | VHERD120JS2-1 | Zener,12V,RD12JS2 | A B |
| ZD103 | VHERD9R1JS2-1 | Zener,9V,RD9.1JS2 | A B |
| ZD104 | VHERD9R1JS2-1 | Zener,9V,RD9.1JS2 | A B |
| ZD105 | VHERD2R0EB/-1 | Zener,2V,RD2EB | A B |
| ZD401 | VHERD160JS1-1 | Zener,16V,RD16JS1 | A B |
| ZD402 | VHERD160JS1-1 | Zener,16V,RD16JS1 | A B |
| ZD403 | VHERD180JS2-1 | Zener,18V,RD18JS2 | A B |
| ZD404 | VHERD180JS2-1 | Zener,18V,RD18JS2 | A B |
| | | **TRANSFORMERS** | |
| ⚠T501 | RTRNP1155AFZZ | Power,H | B D |
| ⚠T501 | RTRNP1156AFZZ | Power,E | B D |

| REF.NO. | PART NO. | DESCRIPTION | CODE |
|---|---|---|---|
| | **COILS** | | |
| L101 | VP-DH100K0000 | 10 μH,H only | A B |
| L102 | RCŌRF0054AFZZ | Inductor,H only | A B |
| L103 | RCŌRF0054AFZZ | Inductor,H only | A B |
| L104 | VP-DH100K0000 | 10 μH,H only | A B |
| L105 | VP-DH100K0000 | 10 μH,H only | A B |
| L301 | RCiLZ0137AFZZ | 0.29 μH,H only | A A |
| L302 | RCiLZ0137AFZZ | 0.29 μH,H only | A A |
| | **CONTROLS** | | |
| VR201 | RVR-Q0185AFZZ | 50 kohms (B) | A E |
| VR202 | RVR-Q0184AFZZ | 100 kohm (W) | A F |
| VR203 | RVR-Q0184AFZZ | 100 kohm (W) | A F |
| VR204 | RVR-Q0184AFZZ | 100 kohm (W) | A F |
| VR205 | RVR-Q0184AFZZ | 100 kohm (W) | A F |
| VR206 | RVR-Q0184AFZZ | 100 kohm (W) | A F |
| VR207 | RVR-Z0199AFZZ | 20 kohms (MN) | A F |
| VR208 | RVR-Z0194AFZZ | 100 kohm (B) | A K |
| VR301 | RVR-M0388AFZZ | 2 kohms (B) | A B |
| VR302 | RVR-M0388AFZZ | 2 kohms (B) | A B |
| | **ELECTROLYTIC CAPACITORS** | | |
| | (Unless therwise specified, electrolytic capacitors are ±20% type.) | | |
| C103 | RC-EZA106AF1C | 10 μF,16V | A B |
| C104 | RC-EZA106AF1C | 10 μF,16V | A B |
| C107 | RC-EZA476AF1A | 47 μF,10V | A B |
| C108 | RC-EZA476AF1A | 47 μF,10V | A B |
| C111 | RC-EZA336AF1E | 33 μF,25V | A B |
| C112 | RC-EZA336AF1E | 33 μF,25V | A B |
| C117 | RC-EZA105AF1H | 1 μF,50V | A B |
| C118 | RC-EZA105AF1H | 1 μF,50V | A B |
| C119 | RC-EZA105AF1H | 1 μF,50V | A B |
| C120 | RC-EZA106AF1C | 10 μF,16V | A B |
| C121 | RC-EZA106AF1E | 10 μF,25V | A B |
| C122 | RC-EZA106AF1C | 10 μF,16V | A B |
| C123 | RC-EZA105AF1H | 1 μF,50V | A B |
| C124 | RC-EZA336AF1E | 33 μF,25V | A B |
| C128 | RC-EZA335AF1H | 3.3 μF,50V | A B |
| C201 | RC-EZA105AF1H | 1 μF,50V | A B |
| C202 | RC-EZA105AF1H | 1 μF,50V | A B |
| C205 | RC-EZA336AF1A | 33 μF,10V | A B |
| C206 | RC-EZA336AF1A | 33 μF,10V | A B |
| C211 | RC-EZA106AF1E | 10 μF,25V | A B |
| C212 | RC-EZA106AF1E | 10 μF,25V | A B |
| C213 | RC-EZA335AF1H | 3.3 μF,50V | A B |
| C214 | RC-EZA335AF1H | 3.3 μF,50V | A B |
| C215 | RC-EZA105AF1H | 1 μF,50V | A B |
| C216 | RC-EZA105AF1H | 1 μF,50V | A B |
| C217 | RC-EZA334AF1H | 0.33 μF,50V | A B |
| C218 | RC-EZA334AF1H | 0.33 μF,50V | A B |
| C225 | RC-EZA476AF1E | 47 μF,25V | A B |
| C226 | RC-EZA476AF1E | 47 μF,25V | A B |
| C227 | RC-EZA226AF1C | 22 μF,16V | A G |
| C228 | RC-EZA226AF1C | 22 μF,16V | A G |
| C241 | RC-EZA335AF1H | 3.3 μF,50V | A B |
| C242 | RC-EZA335AF1H | 3.3 μF,50V | A B |
| C247 | RC-EZA224AF1H | 0.22 μF,50V | A B |
| C248 | RC-EZA224AF1H | 0.22 μF,50V | A B |
| C301 | RC-EZA474AF1H | 0.47μF,50V | A B |
| C302 | RC-EZA474AF1H | 0.47μF,50V | A B |
| C307 | RC-EZA336AF1C | 33 μF,16V | A B |
| C308 | RC-EZA336AF1C | 33 μF,16V | A B |
| C403 | RC-GZV228AF1E | 2200 μF,25V | A E |
| C406 | RC-EZA106AF1E | 10 μF,25V | A B |
| C407 | RC-EZA106AF1E | 10 μF,25V | A B |
| C408 | RC-EZA107AF1C | 100 μF,16V | A B |
| C409 | RC-EZA107AF1C | 100 μF,16V | A B |
| C412 | RC-EZ1175AFZZ | 5600 μF,45V | A P |
| C413 | RC-EZ1175AFZZ | 5600 μF,45V | A P |
| C414 | RC-GZA107AF1E | 100 μF,25V | A B |
| C415 | RC-EZA106AF1E | 10 μF,25V | A B |
| C416 | RC-EZA106AF1H | 10 μF,50V | A B |
| C417 | RC-GZA107AF1A | 100 μF,10V | A C |
| C419 | RC-GZA107AF1E | 100 μF,25V | A B |
| C420 | RC-EZA106AF1E | 10 μF,25V | A B |
| C421 | RC-EZA106AF1E | 10 μF,25V | A B |
| C422 | RC-EZA106AF1E | 10 μF,25V | A B |

## CAPACITORS

There are two types of capacitors available and they can be identified from each other by reading their Part Numbers.

- Ceramic type capacitor;
  A symbol "C" or "K" is given at the 3rd digit of its Part Number like "VCC (or K)·····J."
- Semiconductor type capacitor;
  A symbol "T" is given at the 3rd digit of its Part Number like "VCT·····J."

The capacitance error of each capacitor is indicated by the symbol given at the 13th digit of the Part Number as follows:"J" (±5%), "K" (±10%), "M" (±20%), "N" (±30%), "C" (±0.25 pF), "D" (±0.5 pF), "Z" (+80−20%).

| | | | |
|---|---|---|---|
| C101 | VCCSPA1HL121J | 120 pF,50V | A A |
| C102 | VCCSPA1HL121J | 120 pF,50V | A A |
| C105 | VCKYPA1HB102K | 0.001 μF,50V | A A |
| C106 | VCKYPA1HB102K | 0.001 μF,50V | A A |
| C109 | VCTYPA1EX183K | 0.018 μF,25V | A A |
| C110 | VCTYPA1EX183K | 0.018 μF,25V | A A |
| C113 | VCTYPA1EX153K | 0.015 μF,25V | A A |
| C114 | VCTYPA1EX153K | 0.015 μF,25V | A A |
| C115 | VCQYKA1HM473K | 0.047 μF,50V,Mylar | A B |
| C116 | VCQYKA1HM473K | 0.047 μF,50V,Mylar | A B |
| C125 | VCTYPA1EX102K | 0.001 μF,25V | A A |
| C126 | VCTYPA1EX102K | 0.001 μF,25V | A A |
| C127 | VCCSPA1HL101J | 100 pF,50V | A A |
| C129 | VCCSPU1HL471J | 470 pF,50V | A A |
| C130 | VCCSPU1HL471J | 470 pF,50V | A A |
| C131 | VCCSPU1HL101J | 100 pF,50V,H only | A A |
| C132 | VCCSPU1HL101J | 100 pF,50V,H only | A A |
| C133 | VCCSPA1HL101J | 100 pF,50V,H only | A A |
| C134 | VCCSPA1HL101J | 100 pF,50V,H only | A A |
| C135 | VCCSPU1HL101J | 100 pF,50V,H only | A A |
| C136 | VCCSPA1HL101J | 100 pF,50V,H only | A A |
| C137 | VCKZPU1HF473Z | 0.047 μF,50V | A A |
| C138 | VCKZPU1HF473Z | 0.047 μF,50V | A A |
| C203 | VCKYBT1HB271K | 270 pF,50V | A A |
| C204 | VCKYBT1HB271K | 270 pF,50V | A A |
| C207 | VCKYBT1HB391J | 390 pF,50V | A A |
| C208 | VCKYBT1HB391J | 390 pF,50V | A A |
| C209 | VCKZPA1HF473Z | 0.047 μF,50V | A A |
| C210 | VCKZPA1HF473Z | 0.047 μF,50V | A A |
| C219 | VCTYPA1EX683K | 0.068 μF,25V | A B |
| C220 | VCTYPA1EX683K | 0.068 μF,25V | A B |
| C221 | VCTYPA1EX183K | 0.018 μF,25V | A A |
| C222 | VCTYPA1EX183K | 0.018 μF,25V | A A |
| C223 | VCTYPA1EX472K | 0.0047 μF,25V | A A |
| C224 | VCTYPA1EX472K | 0.0047 μF,25V | A A |
| C229 | VCTYPA1EX823K | 0.082 μF,25V | A B |
| C230 | VCTYPA1EX823K | 0.082 μF,25V | A B |
| C231 | VCTYPA1EX153K | 0.015 μF,25V | A A |
| C232 | VCTYPA1EX153K | 0.015 μF,25V | A A |
| C233 | VCTYPA1EX472K | 0.0047 μF,25V | A A |
| C234 | VCTYPA1EX472K | 0.0047 μF,25V | A A |
| C235 | VCTYPA1EX102K | 0.001 μF,25V | A A |
| C236 | VCTYPA1EX102K | 0.001 μF,25V | A A |
| C237 | VCCSPA1HL271J | 270 pF,50V | A A |

| REF.NO. | PART NO. | DESCRIPTION | CODE |
|---|---|---|---|
| C238 | VCCSPA1HL271J | 270 pF,50V | A A |
| C239 | VCTYPA1EX102K | 0.001 μF,25V | A A |
| C240 | VCTYPA1EX102K | 0.001 μF,25V | A A |
| C243 | VCKYBT1HB471K | 470 pF,50V | A A |
| C244 | VCKYBT1HB471K | 470 pF,50V | A A |
| C245 | VCTYPA1EX333K | 0.033 μF,25V | A A |
| C246 | VCTYPA1EX333K | 0.033 μF,25V | A A |
| C249 | VCTYPA1EX332K | 0.0033 μF,25V | A A |
| C250 | VCTYPA1EX332K | 0.0033 μF,25V | A A |
| C251 | VCKZPA1HF473Z | 0.047 μF,50V | A A |
| C252 | VCFYHA1HA274J | 0.27 μF,50V,Polyethylene Film | A C |
| C253 | VCFYHA1HA274J | 0.27 μF,50V,Polyethylene Film | A C |
| C303 | VCCSPA1HL471J | 470 pF,50V | A A |
| C304 | VCCSPA1HL471J | 470 pF,50V | A A |
| C305 | VCCSPA1HL181J | 180 pF,50V | A A |
| C306 | VCCSPA1HL181J | 180 pF,50V | A A |
| C309 | VCCSPA1HL150J | 15 pF,50V | A A |
| C310 | VCCSPA1HL150J | 15 pF,50V | A A |
| C311 | VCQYKA1HM333K | 0.033 μF,50V,Mylar | A B |
| C312 | VCQYKA1HM333K | 0.033 μF,50V,Mylar | A B |
| C313 | VCFYHA1HA224J | 0.22 μF,50V,Polyethylene Film | A C |
| C314 | VCFYHA1HA224J | 0.22 μF,50V,Polyethylene Film | A C |
| C315 | VCFYHA1HA224J | 0.22 μF,50V,Polyethylene Film | A C |
| C316 | VCFYHA1HA224J | 0.22 μF,50V,Polyethylene Film | A C |
| C317 | VCFYHA1HA224J | 0.22 μF,50V,Polyethylene Film,H only | A C |
| C318 | VCFYHA1HA224J | 0.22 μF,50V,Polyethylene Film,H only | A C |
| C319 | VCFYHA1HA224J | 0.22 μF,50V,Polyethylene Film,H only | A C |
| C320 | VCFYHA1HA224J | 0.22 μF,50V,Polyethylene Film,H only | A C |
| C401 | VCFYHA1HA104J | 0.1 μF,50V,Polyethylene Film | A B |
| C402 | VCFYHA1HA104J | 0.1 μF,50V,Polyethylene Film | A B |
| C404 | VCKZPA1HF223Z | 0.022 μF,50V | A A |
| C405 | VCKZPA1HF223Z | 0.022 μF,50V | A A |
| C410 | VCFYHA1HA104J | 0.1 μF,50V,Polyethylene Film | A B |
| C411 | VCFYHA1HA104J | 0.1 μF,50V,Polyethylene Film | A B |
| C423 | VCTYAT1CY223N | 0.022 μF,16V | A A |
| ⚠C501 | RC-FZ077CAFZZ | 0.047 μF,250V | A C |
| C502 | VCTYAT1CY223N | 0.022 μF,16V,H only | A A |
| C701 | VCCSPU1HL221J | 220 pF,50V,H only | A A |

## RESISTORS

(Unless otherwise specfifed, resistors are ±5%,carbon type.)

| | | | |
|---|---|---|---|
| R101 | VRD-ST2CD102J | 1 kohm,1/6W | A A |
| R102 | VRD-ST2CD102J | 1 kohm,1/6W | A A |
| R103 | VRD-ST2CD102J | 1 kohm,1/6W | A A |
| R104 | VRD-ST2CD102J | 1 kohm,1/6W | A A |
| R105 | VRD-ST2CD102J | 1 kohm,1/6W | A A |
| R106 | VRD-ST2CD102J | 1 kohm,1/6W | A A |
| R107 | VRD-ST2CD223J | 22 kohms,1/6W | A A |
| R108 | VRD-ST2CD223J | 22 kohms,1/6W | A A |
| R109 | VRD-ST2CD273J | 27 kohms,1/6W | A A |
| R110 | VRD-ST2CD273J | 27 kohms,1/6W | A A |
| R111 | VRD-ST2CD473J | 47 kohms,1/6W | A A |
| R112 | VRD-ST2CD473J | 47 kohms,1/6W | A A |
| R113 | VRD-ST2CD562J | 5.6 kohms,1/6W | A A |
| R114 | VRD-ST2CD562J | 5.6 kohms,1/6W | A A |
| R115 | VRD-ST2CD102J | 1 kohm,1/6W | A A |
| R116 | VRD-ST2CD102J | 1 kohm,1/6W | A A |
| R117 | VRD-ST2CD104J | 100 kohm,1/6W | A A |
| R118 | VRD-ST2CD104J | 100 kohm,1/6W | A A |
| R119 | VRD-ST2CD223J | 22 kohms,1/6W | A A |
| R120 | VRD-ST2CD223J | 22 kohms,1/6W | A A |
| R121 | VRD-ST2CD183J | 18 kohms,1/6W | A A |
| R122 | VRD-ST2CD183J | 18 kohms,1/6W | A A |
| R123 | VRD-ST2CD223J | 22 kohms,1/6W | A A |
| R124 | VRD-ST2CD223J | 22 kohms,1/6W | A A |
| R125 | VRD-ST2CD223J | 22 kohms,1/6W | A A |
| R126 | VRD-ST2CD223J | 22 kohms,1/6W | A A |
| R127 | VRD-ST2CD273J | 27 kohms,1/6W | A A |
| R128 | VRD-ST2CD273J | 27 kohms,1/6W | A A |
| R129 | VRD-ST2CD473J | 47 kohms,1/6W | A A |
| R130 | VRD-ST2CD473J | 47 kohms,1/6W | A A |
| R131 | VRD-ST2CD471J | 470 ohms,1/6W | A A |
| R132 | VRD-ST2CD471J | 470 ohms,1/6W | A A |
| R133 | VRD-ST2CD274J | 270 kohms,1/6W | A A |
| R134 | VRD-ST2CD274J | 270 kohms,1/6W | A A |
| R135 | VRD-ST2CD183J | 18 kohms,1/6W | A A |
| R136 | VRD-ST2CD105J | 1 Megohm,1/6W | A A |
| R137 | VRD-ST2CD562J | 5.6 kohms,1/6W | A A |
| R138 | VRD-ST2CD562J | 5.6 kohms,1/6W | A A |
| R139 | VRD-ST2CD105J | 1 Megohm,1/6W | A A |
| R140 | VRD-ST2CD105J | 1 Megohm,1/6W | A A |
| R141 | VRD-ST2EE471J | 470 ohms,1/4W | A A |
| R142 | VRD-ST2EE471J | 470 ohms,1/4W | A A |
| R143 | VRD-ST2CD103J | 10 kohm,1/6W | A A |
| R144 | VRD-ST2CD103J | 10 kohm,1/6W | A A |
| R145 | VRD-ST2CD103J | 10 kohm,1/6W | A A |
| R146 | VRD-ST2CD473J | 47 kohms,1/6W | A A |
| R149 | VRD-ST2CD473J | 47 kohms,1/6W | A A |
| R150 | VRD-ST2CD473J | 47 kohms,1/6W | A A |
| R151 | VRD-ST2CD103J | 10 kohm,1/6W | A A |
| R152 | VRD-ST2CD103J | 10 kohm,1/6W | A A |
| R153 | VRD-ST2CD473J | 47 kohms,1/6W | A A |
| R154 | VRD-ST2CD104J | 100 kohm,1/6W | A A |
| R155 | VRD-ST2CD223J | 22 kohms,1/6W | A A |
| R156 | VRD-ST2CD103J | 10 kohm,1/6W | A A |
| R157 | VRD-ST2CD473J | 47 kohms,1/6W | A A |
| R158 | VRD-ST2CD103J | 10 kohm,1/6W | A A |
| R159 | VRD-ST2CD473J | 47 kohms,1/6W | A A |
| R160 | VRD-ST2CD103J | 10 kohm,1/6W | A A |
| R161 | VRD-ST2CD102J | 1 kohm,1/6W | A A |
| R162 | VRD-ST2CD102J | 1 kohm,1/6W | A A |
| R163 | VRD-ST2CD103J | 10 kohm,1/6W | A A |
| R166 | VRD-ST2CD103J | 10 kohm,1/6W | A A |
| R167 | VRD-ST2CD103J | 10 kohm,1/6W | A A |
| R168 | VRD-ST2CD103J | 10 kohm,1/6W | A A |
| R169 | VRD-ST2CD102J | 1 kohm,1/6W | A A |
| R170 | VRD-ST2CD473J | 47 kohms,1/6W | A A |
| R171 | VRD-ST2CD102J | 1 kohm,1/6W | A A |
| R172 | VRD-ST2CD104J | 100 kohm,1/6W | A A |
| R173 | VRD-ST2CD102J | 1 kohm,1/6W | A A |
| R174 | VRD-ST2EE471J | 470 ohms,1/4W | A A |
| R175 | VRD-ST2CD104J | 100 kohm,1/6W | A A |
| R176 | VRD-ST2CD562J | 5.6 kohms,1/6W | A A |
| R177 | VRD-ST2CD182J | 1.8 kohms,1/6W | A A |
| R178 | VRD-ST2CD683J | 68 kohms,1/6W | A A |
| R179 | VRD-ST2CD681J | 680 ohms,1/6W | A A |
| R180 | VRD-ST2CD103J | 10 kohm,1/6W | A A |
| R181 | VRD-ST2CD273J | 27 kohms,1/6W | A A |
| R182 | VRD-ST2CD273J | 27 kohms,1/6W | A A |
| R201 | VRD-ST2CD473J | 47 kohms,1/6W | A A |
| R202 | VRD-ST2CD473J | 47 kohms,1/6W | A A |
| R203 | VRD-ST2CD473J | 47 kohms,1/6W | A A |
| R204 | VRD-ST2CD473J | 47 kohms,1/6W | A A |
| R205 | VRD-ST2CD102J | 1 kohm,1/6W | A A |

| REF.NO. | PART NO. | DESCRIPTION | CODE |
|---|---|---|---|
| R206 | VRD-ST2CD102J | 1 kohm,1/6W | A A |
| R207 | VRD-ST2CD473J | 47 kohms,1/6W | A A |
| R208 | VRD-ST2CD473J | 47 kohms,1/6W | A A |
| R209 | VRD-ST2CD224J | 220 kohms,1/6W | A A |
| R210 | VRD-ST2CD224J | 220 kohms,1/6W | A A |
| R211 | VRD-ST2CD122J | 1.2 kohms,1/6W | A A |
| R212 | VRD-ST2CD122J | 1.2 kohms,1/6W | A A |
| R213 | VRD-ST2CD562J | 5.6 kohms,1/6W | A A |
| R214 | VRD-ST2CD562J | 5.6 kohms,1/6W | A A |
| R215 | VRD-ST2CD332J | 3.3 kohms,1/6W | A A |
| R217 | VRD-ST2CD563J | 56 kohms,1/6W | A A |
| R218 | VRD-ST2CD563J | 56 kohms,1/6W | A A |
| R219 | VRD-ST2CD681J | 680 ohms,1/6W | A A |
| R220 | VRD-ST2CD681J | 680 ohms,1/6W | A A |
| R221 | VRD-ST2CD272J | 2.7 kohms,1/6W | A A |
| R222 | VRD-ST2CD272J | 2.7 kohms,1/6W | A A |
| R223 | VRD-ST2CD682J | 6.8 kohms,1/6W | A A |
| R224 | VRD-ST2CD682J | 6.8 kohms,1/6W | A A |
| R225 | VRD-ST2CD102J | 1 kohm,1/6W | A A |
| R226 | VRD-ST2CD102J | 1 kohm,1/6W | A A |
| R227 | VRD-ST2CD123J | 12 kohms,1/6W | A A |
| R228 | VRD-ST2CD123J | 12 kohms,1/6W | A A |
| R229 | VRD-ST2EE152J | 1.5 kohms,1/4W | A A |
| R230 | VRD-ST2EE152J | 1.5 kohms,1/4W | A A |
| R231 | VRD-ST2CD223J | 22 kohms,1/6W | A A |
| R232 | VRD-ST2CD223J | 22 kohms,1/6W | A A |
| R233 | VRD-ST2CD104J | 100 kohm,1/6W | A A |
| R234 | VRD-ST2CD104J | 100 kohm,1/6W | A A |
| R235 | VRD-ST2CD103J | 10 kohm,1/6W | A A |
| R236 | VRD-ST2CD103J | 10 kohm,1/6W | A A |
| R237 | VRD-ST2CD103J | 10 kohm,1/6W | A A |
| R238 | VRD-ST2CD152J | 1.5 kohms,1/6W | A A |
| R239 | VRD-ST2CD152J | 1.5 kohms,1/6W | A A |
| R240 | VRD-ST2CD152J | 1.5 kohms,1/6W | A A |
| R241 | VRD-ST2CD152J | 1.5 kohms,1/6W | A A |
| R242 | VRD-ST2CD152J | 1.5 kohms,1/6W | A A |
| R301 | VRD-ST2CD392J | 3.9 kohms,1/6W | A A |
| R302 | VRD-ST2CD392J | 3.9 kohms,1/6W | A A |
| R303 | VRD-ST2CD471J | 470 ohms,1/6W | A A |
| R304 | VRD-ST2CD471J | 470 ohms,1/6W | A A |
| R305 | VRD-ST2CD103J | 10 kohm,1/6W | A A |
| R306 | VRD-ST2CD103J | 10 kohm,1/6W | A A |
| R307 | VRD-ST2CD472J | 4.7 kohms,1/6W | A A |
| R308 | VRD-ST2CD472J | 4.7 kohms,1/6W | A A |
| R309 | VRD-ST2CD333J | 33 kohms,1/6W | A A |
| R310 | VRD-ST2CD333J | 33 kohms,1/6W | A A |
| R311 | VRD-ST2CD681J | 680 ohms,1/6W | A A |
| R312 | VRD-ST2CD681J | 680 ohms,1/6W | A A |
| R313 | VRD-ST2CD471J | 470 ohms,1/6W | A A |
| R314 | VRD-ST2CD471J | 470 ohms,1/6W | A A |
| R315 | VRD-ST2CD473J | 47 kohms,1/6W | A A |
| R316 | VRD-ST2CD473J | 47 kohms,1/6W | A A |
| R317 | VRD-ST2CD222J | 2.2 kohms,1/6W | A A |
| R318 | VRD-ST2CD222J | 2.2 kohms,1/6W | A A |
| R319 | VRD-ST2CD222J | 2.2 kohms,1/6W | A A |
| R320 | VRD-ST2CD222J | 2.2 kohms,1/6W | A A |
| R321 | RR-FZ1007AFZZ | 0.1 ohm,2W,±10%,Metal Plate | A B |
| R322 | RR-FZ1007AFZZ | 0.1 ohm,2W,±10%,Metal Plate | A B |
| R323 | RR-FZ1007AFZZ | 0.1 ohm,2W,±10%,Metal Plate | A B |
| R324 | RR-FZ1007AFZZ | 0.1 ohm,2W,±10%,Metal Plate | A B |
| R325 | VRD-RT2HD100J | 10 ohm,1/2W | A A |
| R326 | VRD-RT2HD100J | 10 ohm,1/2W | A A |
| R327 | VRD-RT2HD100J | 10 ohm,1/2W,H only | A A |
| R328 | VRD-RT2HD100J | 10 ohm,1/2W,H only | A A |
| R403 | VRD-ST2CD122J | 1.2 kohms,1/6W | A A |
| R404 | VRD-ST2CD122J | 1.2 kohms,1/6W | A A |
| R405 | VRD-ST2EE1R2J | 1.2 ohms,1/4W | A A |
| R406 | VRD-ST2EE1R2J | 1.2 ohms,1/4W | A A |
| R407 | VRD-ST2EE1R2J | 1.2 ohms,1/4W | A A |
| R408 | VRD-ST2EE1R2J | 1.2 ohms,1/4W | A A |
| R409 | VRD-ST2CD472J | 4.7 kohms,1/6W | A A |
| R410 | VRD-ST2CD472J | 4.7 kohms,1/6W | A A |
| R411 | VRD-ST2CD102J | 1 kohm,1/6W | A A |
| R412 | VRD-ST2CD102J | 1 kohm,1/6W | A A |
| R413 | VRD-ST2CD103J | 10 kohm,1/6W | A A |
| R414 | VRD-ST2CD103J | 10 kohm,1/6W | A A |
| R415 | VRD-ST2CD101J | 100 ohm,1/6W | A A |
| R416 | VRD-ST2CD101J | 100 ohm,1/6W | A A |
| R417 | VRD-ST2CD103J | 10 kohm,1/6W | A A |
| R418 | VRD-ST2CD103J | 10 kohm,1/6W | A A |
| R419 | VRD-ST2CD103J | 10 kohm,1/6W | A A |
| R420 | VRD-ST2CD103J | 10 kohm,1/6W | A A |
| R421 | VRD-ST2CD104J | 100 kohm,1/6W | A A |
| R422 | VRD-ST2CD104J | 100 kohm,1/6W | A A |
| ⚠R423 | VRG-ST2HD3R3J | 3.3 ohms,1/2W,Fusible | A B |
| R424 | VRD-ST2EE392J | 3.9 kohms,1/4W | A A |
| R425 | VRD-ST2EE392J | 3.9 kohms,1/4W | A A |
| R426 | VRD-ST2CD222J | 2.2 kohms,1/6W | A A |
| R427 | VRD-ST2CD472J | 4.7 kohms,1/6W | A A |
| R428 | VRD-ST2CD153J | 15 kohms,1/6W | A A |
| R429 | VRD-ST2CD223J | 22 kohms,1/6W | A A |
| R430 | VRD-ST2CD474J | 470 kohms,1/6W | A A |
| R431 | VRD-ST2CD473J | 47 kohms,1/6W | A A |
| R432 | VRD-ST2CD223J | 22 kohms,1/6W | A A |
| ⚠R433 | VRG-ST2EC680J | 68 ohms,1/4W,Fusible | A B |
| R434 | VRD-ST2HD182J | 1.8 kohms,1/2W | A A |
| R435 | VRD-ST2CD103J | 10 kohm,1/6W | A A |
| R436 | VRD-ST2CD103J | 10 kohm,1/6W | A A |
| R437 | VRD-ST2EE153J | 15 kohms,1/4W | A A |
| R438 | VRD-ST2EE153J | 15 kohms,1/4W | A A |
| R439 | VRD-ST2CD224J | 220 kohms,1/6W | A A |
| R440 | VRD-ST2CD223J | 22 kohms,1/6W | A A |
| R441 | VRD-ST2CD223J | 22 kohms,1/6W | A A |
| R442 | VRD-ST2CD224J | 220 kohms,1/6W | A A |
| R443 | VRD-ST2CD222J | 2.2 kohms,1/6W | A A |
| R444 | VRD-ST2EE3R3J | 3.3 ohms,1/4W | A A |
| R601 | VRD-RT2HD821J | 820 ohms,1/2W | A A |
| R602 | VRD-RT2HD821J | 820 ohms,1/2W | A A |
| R603 | VRD-RT2HD821J | 820 ohms,1/2W | A A |
| R604 | VRD-RT2HD821J | 820 ohms,1/2W | A A |
| R605 | VRD-RT2HD821J | 820 ohms,1/2W | A A |
| R606 | VRD-RT2HD821J | 820 ohms,1/2W | A A |
| R701 | VRD-ST2CD103J | 10 kohm,1/6W | A A |

## OTHER CIRCUITRY PARTS

| | | | |
|---|---|---|---|
| ⚠ | QACCB0059AF09 | AC Power Supply Cord,E | A K |
| ⚠ | QACCV0052AF08 | AC Power Supply Cord,H | A K |
| CNP401 | QCNCM624EAFZZ | Plug,5pin | A C |
| CNS401 | QCNW-3300AFZZ | Connector Assembly,5pin | A E |
| CNW101 | QCNCM656FAFZZ | Plug,6Pin | A B |
| CNW102 | QCNCM656FAFZZ | Plug,6Pin | A B |
| CNW301 | QCNCM656FAFZZ | Plug,6Pin | A B |
| ⚠F301 | QFS-C402EAFNi | Fuse,T4.0A,For H | A D |
| ⚠F301 | QFS-C402GAFNi | Fuse,T4.0A,For E | A D |
| ⚠F302 | QFS-C402EAFNi | Fuse,T4.0A,For H | A D |
| ⚠F302 | QFS-C402GAFNi | Fuse,T4.0A,For E | A D |
| ⚠F501 | QFS-C122EAFNi | Fuse,T1.25A,For H 220V | A D |
| ⚠F501 | QFS-C122GAFNi | Fuse,T1.25A,For E | A D |
| ⚠F501 | QFS-C252EAFNi | Fuse,T2.5A,For H 110V | A D |
| ⚠F502 | QFS-C202EAFNi | Fuse,T2A,For H | A D |
| ⚠F502 | QFS-C202GAFNi | Fuse,T2A,For E | A D |
| J601 | QJAKJ0149AFZZ | Jack,Headphones | A F |
| J701 | QJAKE0153AFZZ | Jack,Microphone | A E |
| SO101 | QSōCD4810AFZZ | DIN Socket,8Pin | A E |
| SO102 | QSōCJ4211AFZZ | Socket,CD | A D |

| REF.NO. | PART NO. | DESCRIPTION | CODE |
|---|---|---|---|
| SO103 | QSōCZ9065AFZZ | Socket,Tape | A H |
| SO104 | QSōCD4507AFZZ | DIN Socket,5Pin | A E |
| SO105 | QSōCD4507AFZZ | DIN Socket,5Pin | A E |
| SO301 | QSōCD4402AFZZ | Socket,Speaker | A F |
| SW201 | QSW-K0065AFZZ | Switch,Key Type | A B |
| SW202 | QSW-K0065AFZZ | Switch,Key Type | A B |
| SW203 | QSW-K0065AFZZ | Switch,Key Type | A B |
| SW204 | QSW-K0065AFZZ | Switch,Key Type | A B |
| SW205 | QSW-K0065AFZZ | Switch,Key Type | A B |
| SW206 | QSW-P0612AFZZ | Switch,Push Type | A E |
| SW207 | QSW-K0065AFZZ | Switch,Key Type | A B |
| ⚠SW501 | QSW-P9165AFZZ | Switch,Power | A G |
| | **EXPLODED PARTS** | | |
| 101 | CPNLC1661AF01 | Front Panel Assembly,H(S) | B E |
| 101 | CPNLC1661AF03 | Front Panel Assembly, H(BK),E(BK) | B E |
| 101- 1 | GCōVA1533AFSA | Cover,Graphic Equalizer Control | A D |
| 101- 2 | GCōVA1545AFSA | Cover,Graphic Equalizer | A G |
| 101- 3 | GCōVA1571AFSA | Cover,Muting Button, H(BK),E(BK) | A D |
| 101- 3 | GCōVA1571AFSB | Cover,Muting Button,H(S) | A D |
| 101- 4 | GCōVA1579AFSA | Cover,Function LED | A D |
| 101- 5 | GCōVA1589AFSA | Cover,Button,H(BK),E(BK) | A D |
| 101- 5 | GCōVA1589AFSB | Cover,Button,H(S) | A D |
| 101- 6 | GCōVA1591AFSA | Cover,LED | A D |
| 101- 7 | ———— | Front Panel | — |
| 101- 8 | HPNLC3578AFSA | Panel,Graphic Equalizer Section,H(BK),E(BK) | A M |
| 101- 8 | HPNLC3578AFSB | Panel,Graphic Equalizer Section,H(S) | A M |
| 101- 9 | HPNLC3579AFSA | Panel,Amp Section,H(BK), E(BK) | A M |
| 101- 9 | HPNLC3579AFSB | Panel,Amp Section,H(S) | A M |
| 101-10 | HPNLC3580AFSA | Panel,Lower Section, H(BK),E(BK) | A P |
| 101-10 | HPNLC3580AFSB | Panel,Lower Section,H(S) | A P |
| 101-11 | JKNBZ0424AFSA | Button,H(BK),E(BK) | A E |
| 101-11 | JKNBZ0424AFSB | Button,H(S) | A E |
| 101-12 | HDECP0292AFSB | Decoration Sheet | A A |
| 101-13 | PFLT-0494AFZZ | Felt,Front Leg | A A |
| 101-14 | GCōVZ1080AFZZ | Cover,Graphic Equalizer | A B |
| 101-15 | GCōVZ1081AFZZ | Cover,Graphic Equalizer, Lower | A B |
| 101-16 | GCōVZ1082AFZZ | Cover,Graphic Equalizer, Upper | A B |
| 102 | GCAB-3194AFSA | Cabinet,H(BK),E(BK) | A R |
| 102 | GCAB-3194AFSB | Cabinet,H(S) | A R |
| 104 | HDECP0293AFSA | Back Plate | A D |
| 105 | HDECP0334AFSA | Decoration Sheet,Volume, H(BK),E(BK) | A D |
| 105 | HDECP0334AFSB | Decoration Sheet,Volume, H(S) | A D |
| 106 | JKNBM0437AFSA | Button,Loudness,H(S) | A B |
| 106 | JKNBM0437AFSE | Button,Loudness,H(BK), E(BK) | A B |
| 107 | JKNBM0547AFSA | Button,Power,H(BK),E(BK) | A F |
| 107 | JKNBM0547AFSB | Button,Power,H(S) | A F |
| 108 | JKNBP0250AFSB | Knob,Graphic Equalizer | A C |
| ⚠109 | LBSHC0064AFZZ | Bushing,AC Power Supply Cord | A C |
| 110 | LCHSZ0201AFZZ | Chassis | — |
| 112 | LHLDF1347AFZZ | Holder,PWB | A B |
| 113 | MLEVP0592AFZZ | Lever,Power Switch | A C |
| 114 | PFLT-0369AFZZ | Felt,Rear Reg | A A |
| 115 | PRDAR0268AFZZ | Heat Sink,Rectifier | A D |
| 117 | PRDAR0407AFFW | Heat Sink,Small | A C |
| 119 | LX-LZ0067AF00 | Push Rivet | A A |
| 120 | PSHEG0082AFZZ | Rubber,Heat Sink | A D |
| ⚠121 | QFSHD1054AFZZ | Fuse Holder | A A |
| 122 | TSPC-1395AFZZ | Specification Label,H(BK) | A F |
| 122 | TSPC-1396AFZZ | Specification Label,H(S) | A F |
| 122 | TSPC-1409AFZZ | Specification Label,E(BK) | A F |
| 123 | PCōVW9134AFZZ | Cover,AC Power Supply Cord | A E |
| 124 | PGUMS0363AF00 | Rubber,50×50×9mm | A D |
| 125 | PSPAi0304AFZZ | Spacer,10×20×1mm | A A |
| 126 | LHLDW1075AFZZ | Wire Holder,60mm | A A |
| 127 | PSPAi0309AFZZ | Spacer,Heat Sink | A B |
| 128 | PSPAZ0194AFZZ | Spacer,Power PWB | A A |
| 129 | JKNBZ0247AFSE | Knob,Volume Control, H(BK),E(BK) | A D |
| 129 | JKNBZ0247AFSG | Knob,Volume Control,H(S) | A D |
| 130 | PSPAZ0200AFZZ | Spacer,3×15×0.2mm | A A |
| 131 | LANGF0412AFZZ | Bracket,Power Transformer | A A |
| 132 | LANGK0459AFZZ | Bracket | A C |
| 133 | LHLDW9002CEZZ | Wire Holder | A A |
| 134 | PGUMS0366AF00 | Rubber,10×80×5mm | A B |
| 135 | LHLDW1068AFZZ | Nylon Band | A A |
| 136 | PSPAi0299AFZZ | Spacer,15×25mm | A A |
| 137 | PFLT-0675AFZZ | Felt | A C |
| 138 | PSPAi0226AFZZ | Spacer,PWB | A A |
| 139 | LANGF0965AFZZ | Bracket,Heat Sink Support | A C |
| ⚠140 | QLUGP0165AFZZ | Lug Terminal | A A |
| 141 | PRDAR0413AFFW | Heat Sink,Main | A W |
| 142 | PRDAR0416AFFW | Heat Sink,Sub | A S |
| 601 | XHBSD30P06000 | Screw,$\phi$3×6mm | A A |
| 602 | XHBSD40P06000 | Screw,$\phi$4×6mm | A A |
| 603 | XHBSF30P08000 | Screw,$\phi$3×8mm,Black | A A |
| 604 | XHBSF40P08000 | Screw,$\phi$4×8mm | A A |
| 605 | XHBSN30P08000 | Screw,$\phi$3×8mm | A A |
| 606 | XHBSN40P06000 | Screw,$\phi$4×6mm | A A |
| 607 | XHSSD30P08000 | Screw,$\phi$3×8mm | A A |
| 608 | XJBSF30P10000 | Screw,$\phi$3×10mm | A A |
| 609 | XHBSF40P06000 | Screw,$\phi$4×6mm | A A |
| 610 | LX-HZ0082AFZZ | Screw | A A |
| 611 | XHBSD30P04000 | Screw,$\phi$3×4mm | A A |
| 612 | XHMSF40P10K00 | Screw,$\phi$4×10mm | A A |
| 613 | XJBSD30P08000 | Screw,$\phi$3×8mm | A A |
| 614 | LX-HZ0087AFFD | Screw with Spring Washer | A A |
| 615 | LX-JZ0033AFFF | Screw,$\phi$3×8mm | A A |
| 616 | XHBSD30P08R00 | Screw with Washer | A A |
| 617 | LX-JZ0010AFFF | Screw | A A |
| 618 | LX-JZ0061AFFD | Screw | A A |
| 619 | XJBSD30P10R0D | Screw,$\phi$3×10mm | A A |
| 620 | LX-WZ7056AFZZ | Washer | A A |
| 621 | XJBSD30P16000 | Screw,$\phi$3×16mm | A A |
| | **ACCESSORIES/PACKING PARTS** | | |
| | PBRSR0004AFZZ | Cleaner,Stylus | A D |
| | PFLT-0665AFZZ | Leg,Felt | A F |
| | QANTL0013AFZZ | Loop Antenna | A M |
| | QANTW0064AFZZ | Wire Antenna | A G |
| | SPAKA1480AFZZ | Packing Add.,Left | A D |
| | SPAKA1481AFZZ | Packing Add.,Right | A D |
| | SPAKC3467AFZZ | Packing Case,H(BK) | A K |
| | SPAKC3470AFZZ | Packing Case,H(S) | A K |
| | SPAKC3494AFZZ | Packing Case,E(BK) | A K |
| | SPAKP0582AFZZ | Polyethylene Bag,Unit | A D |
| | SSAKA0024AFZZ | Polyethylene Bag, Operation Manual,H | A A |
| | SSAKA0104AFZZ | Polyethylene Bag, Operation Manual,E | A H |
| | TCAUH0056AGZZ | Caution Label,AC Power Supply Cord,E | A A |
| | TCAUZ0039AFZZ | Label,Caution,Polyethylene Bag,E | A A |
| | TGANE1117AFZZ | Warranty Card,E | A B |
| | TiNSE1061AFZZ | Operation Manual,E | A R |
| | TiNSZ0811AFZZ | Operation Manual,H | A U |
| | TLABJ0006AFZZ | Label,MADE IN JAPAN,E | A A |
| | **P.W.B. ASSEMBLY (Not Replacement Item)** | | |
| PWB-A1～A4 | DUNTM0192AF03 | Main/Power/Headphones/ Mic,H | — |
| | DUNTM0192AF06 | Main/Power/Headphones/ Mic,E | — |
| PWB-B1,B2 | DUNTT0068AF03 | Graphic/Indicator | — |

## Ⓔ SERVICE INFORMATION

### Supply Voltage Setting

The SM-207H can operate on either 110V or 220V power supply, and it has been adjusted to the 220V position before leaving the factory. When operating the unit on 110V power supply, take the following procedures.

1. Remove the cabinet according to the "DISASSEMBLY" instruction.
2. Cut out the jumper wire JW1 and add the jumper wire JW2 to the position shown in Fig. 23–1.
3. Replace the fuse F501 with a fuse of 2.5A.

## Ⓓ SERVICE-INFORMATION

### Einstellung der Versorgungs spannung

Das SM-207H kann über eine Netzspannung von 110V oder 220V betrieben werden, und vor dem Versand ist das auf der 220V-Stellung eingestellt. Beim Betrieb des Geräts über eine Netzspannung von 110V die folgenden Verfahren ausführen.

1. Das Gehäuse gemäß der Anleitung "ZERLEGEN" entfernen.
2. Den Schaltdraht JW1 abschneiden und den Schaltdraht JW2 zu der in Abb. 23–1 gezeigten Stelle hinzufügen.
3. Die Sicherung F501 gegen eine von 2,5A auswechseln.

## Ⓕ INFORMATION DE SERVICE

### Réglage de la tension

Le SM-207H, fonctionnant sur le secteur soit de 110V soit de 220V, a été préréglé sur le 220V à la sortie de l'usine. Pour le faire fonctionner sur le secteur de 110V, suivre les procédés ci-dessous.

1. Déposer le coffret conformément à l'instruction "DÉMONTAGE".
2. Couper le fil volant JW1 et ajouter le fil volant JW2 à l'endroit indiqué sur la Fig. 23–1.
3. Changer le fusible F501 pour celui de 2,5 A.

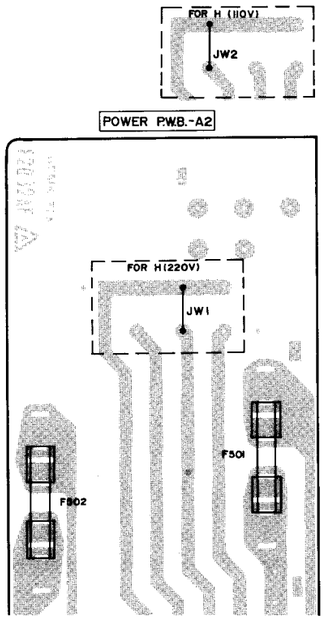



**Figure 23–1**



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